



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 8  
999 18<sup>TH</sup> STREET - SUITE 300  
DENVER, CO 80202-2466  
<http://www.epa.gov/region08>

Ref: 8EPR-ER

### INTERIM POLLUTION REPORT (OPA) KENCO REFINERY

**Date:** August 29, 2000  
**Subject:** Oil Spill Removal @ Kenco Refinery  
**Federal Project (FPN#):** A99031  
**OSC Name:** Steven Way  
**Agency:** EPA  
**Unit:** Region VIII  
EPR-ER  
999 18th Street, Suite 500  
Denver Colorado 80202  
Phone #(303)312-6723  
**Party Conducting Action:** EPA  
**POLREP No.:** Oil (OPA) POLREP #2

## II. SITUATION

**Date of Notification:** 05/04/99 (During EPA CERCLA sampling at the site)  
**Date Action Started:** 05/04/99  
**Material Involved:** Jet fuel/diesel oil  
**Quantity Discharged:** Unknown  
**Substantial Threat:** Surface water (Missouri River)  
**Resource Affected:** Ground water and potentially surface water  
**Source Identification:** Storage tanks, underground piping, spills  
**Demobilization Date:** TBD  
**Completion Date:** TBD

## III. SITE INFORMATION

### A. Incident Description

At the request of the State and EPA (MT Office) to address abandoned drums at the defunct Wolf Point Refinery (aka, Kenco Refinery), Region 8 Emergency Response Program and its START mobilized to the Site on May 4, 1999, to sample drums, tanks, and containers which appeared to contain various hazardous substances such as corrosive substances, ignitable substances, oil, and unlabeled substances. During this



investigation, subsurface contamination was investigated in several areas that appeared to be contaminated. Oil was discovered on the water table at the site.

#### **B. Site Description and Evaluation**

The Site is located approximately six miles east of Wolf Point on Highway 13, Roosevelt County, Montana. The Site is an abandoned oil refinery approximately four acres in size, which had been in operation from 1965 to 1985. While operating, the refinery produced JP-4 jet fuel, number 1 and 2 diesel fuel, fuel oil, and reformed oil from a single crude topping plant, crude distillation unit, and Merox treating unit. There are two groundwater wells on the Site, finished to approximately 80-84 feet, with a depth to water of 30 feet. The Site is approximately one mile upgradient from the Missouri River. **(See previous Polrep for additional information.)**

#### **C. Description of threat or substantial threat**

**Surface oil contamination and subsurface free phase oil is present on the ground water. The historical river meanders are observable on the historical aerial photographs and the general gradient is toward the Missouri River. The free phase oil was measured at 18.4 feet below ground surface. Ground water was measured at 21 feet below ground and oil thickness ranges from 2 feet to 4 feet; the river is approximately one mile to the south.**

### **IV. RESPONSE INFORMATION**

#### **A. Actions to date**

On May 4, 1999, UOS-START was mobilized to the Site to sample containers, tanks and soil that may contain oil/hazardous substances.

On June 14, 1999, EPA initiated a CERCLA action and mobilized its ERRS West response contractor (CET) to the Site to stabilize, cleanup and secure on-site storage of hazardous substance in containers and asbestos on the ground. Arrangements for disposal are underway.

The Kenco Refinery Plume field investigation was conducted from September 7 to September 19, 1999. The field investigation included drilling 20 soil borings to depths of approximately 28 feet by hollow stem auger methods to continuously core the entire depth of the borings. Seven of

the borings were completed as monitor wells based on the presence of free phase hydrocarbons on the groundwater.

Wells were inspected in February; the free phase oil plume was shown to be present further to the south (toward the river) than previously observed. Based on this information additional investigations were initiated. Substantial soil contamination at depth was found around the former above-ground tanks. The oil appears to be mainly contained within the silt and clay soils above the ground water.

Between April 11 and April 17, 2000, additional investigations were performed to determine the extent of the oil plume. Two areas were investigated - the railcar loading area and the truck loading area - using a combination of soil gas, soil cores and monitoring wells. Soil gas measurements were collected at thirty locations, at 15 feet below ground surface, on 50 feet spacings.

The oil product was found to be approximately 300 feet south of the refinery property toward the river. The total extent of the southern plume (along the railroad loading rack) is estimated to be 400 feet (north to south) and 800 feet (east to west). The northern plume (at the truck loading rack) is considerably smaller at 400 feet (north to south) and 200 feet (east to west).

In evaluating the threat to the Missouri River the START geologist and the Environmental Response Team have reviewed the data. Several factors point to the conclusion that there is limited threat to the river. The plume has only migrated a short distance from the facility during the period since operations were shut-down in 1985. The shallow sand aquifer is confined and unconfined within clays and silts and appears not to allow for a high rate of migration toward the river. Relatively flat gradients range from 0.0007 to 0.0015 ft/ft toward the southeast.

#### B. Future Plans

Additional wells will be installed to provide monitoring points outside and downgradient of the plume. Limited permeability testing may be performed to evaluate hydraulic conductivity. These activities will provide an opportunity to monitor the plume migration, and they may assist in estimating the potential for rates of oil migration on the ground water toward the river.

C. Key Issues

In July the OSC requested additional funding to initiate removal actions associated with the plume and substantial soil contamination around storage tanks. At this time, the USGC-NPFC does not intend to fund OPA removal actions at the site because it does not appear to pose an imminent threat to surface water.

D. Enforcement

The property owner is cooperating with EPA. The owner was not the operator of the refinery; he purchased the facility for scrap metal recycling. He claims to have no resources to affect a clean up of either CERCLA hazardous substances or oil. After the immediate threats and potential threats at the Site are addressed, EPA will further evaluate and coordinate potential enforcement action under OPA or other authorities as appropriate.

V. COST INFORMATION

The FPN Ceiling which has been approved for this site is \$200,000.

Costs to date for investigating the oil plume are approximately \$130,000.

VI. DISPOSITION OF WASTES

No materials are planned for disposal.